Accelerating Europe’s Comeback
Digital Opportunities for Competitiveness and Growth
About the Accenture programme on “Accelerating Europe’s Comeback: Digital Opportunities for Competitiveness and Growth”

Accenture believes that the European Union (EU) can return to higher economic growth and reduce its widening competitiveness gap with the rest of the world through widespread adoption of digital technologies. To outline the opportunities for the EU and the steps business and policy decision makers must take to convert the EU's digital potential into higher levels of productivity, innovation and growth, Accenture has initiated a formal research programme.

This initial point of view is deliberately intended as an observational analysis, stating our hypotheses as a basis for discussion. We are now conducting primary research and economic analysis and will publish these insights on the EU, the five largest country economies and key industry sectors in mid-2014.
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Accelerating Europe's Comeback

Digital Opportunities for Competitiveness and Growth

1. In 2014 the EU is emerging from recession and business sentiment is picking up.
   Business leaders from the five largest EU economies:

   - 65% expect the EU economy overall to improve.
   - 81% expect their businesses will increase revenues.
   - 71% expect their businesses to increase profits.
   - 64% said they expect to increase their workforces.

2. But the EU has not yet seen a positive shift in the competitiveness of most of its economies.

   **PRODUCTIVITY**
   Determines the cost of what companies sell.
   - Since 2000, EU economies have underperformed the US economy in labour productivity growth in most years and are forecast to continue to do so.
   - China is forecast to have 4 times the productivity growth rate of the EU in 2014.

   **INNOVATION**
   Provides new and differentiated products and services to sell.
   - In 2012, United States R&D intensity was 35 percent higher than the EU average.
   - In 2012, China already had higher R&D intensity than Italy, Spain and the United Kingdom.
   - China has been growing its R&D investment at 18 percent annually over the past 10 years.

   **HIGH VALUE GOODS AND SERVICES**
   The EU traditionally had an advantage in high-technology products and knowledge intensive services.
   - After the global recession in 2008, in the EU, the output of high technology products and knowledge intensive services fell sharply and has not recovered.
   - In the USA and China, the recession had little impact on output of high technology products and knowledge intensive services.

3. Digital is a powerful lever to accelerate the EU's progress in rebuilding competitiveness.

   - Adoption of new digital processes to increase productivity and alter the cost base of companies.
   - Creation of new kinds of products, services and business models.

   **The impact new digital technologies is significant**
   - Accenture global analysis shows a 1 percent increase in digitalization of an economy correlates to a 0.3 percent increase in GDP.
   - 46% of EU executives surveyed said that digital technologies would significantly change or transform their industries in the near term.

   **The EU is in a good position to exploit its strong performance in digital technology adoption**
   - 96 percent broadband coverage.
   - 59 percent mobile broadband take-up.
   - 47 percent purchase goods and services online.
   - 41 percent access government services online.

4. Realising the digital opportunity for Europe

   **THE BUSINESS AGENDA**
   - Increase productivity and reduce costs through automation and new production methods.
   - Use analytics and real time information to improve financial performance, better control the business and increase speed to market.
   - Develop and implement new ways to optimise the customer experience across multiple channels.
   - Leverage digital technologies to create new markets, products and services based on new business partnerships at the intersection of converging markets.

   **THE POLICY AGENDA**
   - Work with business, education and the third sector to address the digital divide in skills and employment. Severe shortfall in digital skills and displacement of workers due to concurrent automation and changing skills requirements.
   - Address the fragmented regulatory framework, including the harmonisation of EU rules on data protection and the management of communications’ markets to create an EU-wide digital market.
   - Support entrepreneurship and the creation of new businesses and markets to create new jobs. Make it easier for businesses to start and grow. Support the development of industry clusters and facilitate access to new models of finance.
Accelerating Europe’s Comeback: Digital Opportunities for Competitiveness and Growth.

The European Union (EU) can return to higher economic growth and reduce its widening competitiveness gap with the rest of the world through widespread adoption of digital technologies. However, leading executives from the five largest economies of the EU are less positive about the importance and potential of digital than their global peers. European business and policy decision makers must take urgent steps to convert the EU’s digital potential into higher levels of productivity, innovation and growth.

“If you really look at an economy, once you take away the short-term stimulus from fiscal and monetary policy, what will ultimately drive growth in Europe is technology, innovation and trade. Now on all of these fronts, you really need to work in Europe because Europe is losing global market share, the emergence of China is putting Europe under threat and, therefore, Europe needs to do his homework to be a big player in the future.”

— Axel Weber, Chairman of the Board of Directors, UBS Switzerland
The modest recovery masks a decline in the competitiveness of the EU

In recent months, the economic news on the EU has been brightening somewhat. There will likely be a return to economic growth in the EU, albeit modest and uneven. The European Commission forecasts EU GDP growth of 1.5 percent in 2014 and 2.0 percent in 2015 after 0.1 percent in 2013. Real unit labour costs are forecast to fall by 0.4 percent in 2013, by 0.5 percent in 2014 and by 0.6 percent in 2015.

The growth rate of public debt in the EU slowed in 2013. It is forecast to slow further in 2014 and 2015 may see a slight fall in public sector debt across EU economies. Both domestic and export demand are set to recover. Domestic demand is forecast to grow by 1.4 percent in 2014 and 1.9 percent in 2015 after a fall of 0.3 percent in 2013. Export growth is forecast to increase from a lacklustre 1.4 percent in 2013 to 4.1 percent in 2014 and 5.5 percent in 2015.

Importantly, business sentiment is picking up in concert. According to Accenture research, nearly two-thirds of business leaders from the five largest EU economies expected the EU economy overall to improve (see Figure 1). The vast majority of these business leaders also expected their revenues (81 percent of respondents) and profits (71 percent of respondents) to increase in 2014. Crucially, 64 percent of respondents said they expected to increase their workforces, which could help address the region’s flagging employment.

However, despite this good news, the EU has not yet seen a genuine, positive shift in its competitiveness. This is apparent in the continuing growth gap with other major economies that compete with the EU. In particular, two areas are critical to competitiveness. The first is productivity, which determines the cost of the products and services companies can sell on domestic and world markets. The second is innovation, which determines the ability to achieve a continuing stream of new and differentiated high-value goods and services. Both have been stagnant, resulting in a continuing decline of European competitiveness.

Figure 1: 65 percent of business leaders from the EU’s five largest economies are optimistic about growth in 2014, within the economies they are based:

5 largest EU Economies

- Germany: 68%
- UK: 63%
- France: 52%
- Italy: 51%
- Spain: 70%

Optimistic EU economy would improve in 2014
Source: Accenture research based on EIU CEO Briefing: The global agenda, 2013
While labour productivity growth has been recovering in the EU with a 0.5 percent growth in 2013, and 1 percent and 1.2 percent growth forecast for 2014 and 2015 respectively, a comparison shows productivity growth below that in the United States, both in the majority of recent years and in the forecast period (see Figure 2). China's labour productivity, while still below that of the EU, is forecast to grow at four times the EU rate in 2014.

In his 2014 State of the Union address, US President Barack Obama claimed that "the nation that goes all-in on innovation today will own the global economy tomorrow." Research and development (R&D) expenditure is one of the key indicators of innovation in an economy. This is why the EU has set a headline target of 3 percent of EU GDP to be invested in R&D by 2020, as part of Europe 2020. Comparing R&D intensity (R&D expenditure compared to GDP) for the United States, Japan, China, the EU and its five largest economies, the gap is striking (see Figure 3). Germany is the notable exception. China in 2011 already had a higher R&D intensity than Italy, Spain and even the United Kingdom and has been growing its R&D investment at about 18 percent annually over the past 10 years. Today, China is one of the top three economies worldwide in terms of total R&D spend behind the United States and Japan.

![Figure 2: Labour productivity growth in percent for EU, USA, Japan and China](image)

<table>
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<tr>
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<th>EU</th>
<th>USA</th>
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<td>1.2</td>
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Source: National Science Foundation, Science and Engineering Indicators 2014, United States and Japan data for 2012 and China Data: OECD Main Science and Technology Indicators, Volume 2013 Issue 2

![Figure 3: Research & development expenditure as a proportion of GDP in percent](image)
Linked directly to R&D expenditure is the development of innovative, high-technology products, such as information and communications technology (ICT), aircraft, pharmaceuticals and testing and control equipment, and knowledge-intensive services such as IT services, business, finance and communications. Following the global recession in 2008, both the output of high-technology products and of knowledge-intensive services fell sharply in the EU and had not recovered by the end of 2012. In the United States and China, the recession had little impact on output of high-technology products and knowledge-intensive services (see Figures 4 and 5).

Looking at export performance in high-technology products, China dominated in the total value of all high-technology products exported and in the ICT segment, while the EU led worldwide in exports of pharmaceuticals and in testing and control equipment (see Figure 6).

Despite the aforementioned drop in output in recent years, the EU is also still a worldwide leader in knowledge-intensive services exports. However, both China and India today have built significant world market shares (See Figure 7).

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**Figure 4: Output of high-technology manufacturing**

<table>
<thead>
<tr>
<th>Year</th>
<th>United States</th>
<th>China</th>
<th>EU</th>
<th>Other developed</th>
<th>Japan</th>
<th>Other developing</th>
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<tr>
<td>2012</td>
<td>377.9</td>
<td>557.1</td>
<td>431.6</td>
<td>128.1</td>
<td>631.7</td>
<td>560.8</td>
</tr>
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</table>

**Source:** National Science Foundation, Science and Engineering Indicators 2014

**Figure 5: Output of commercial knowledge-intensive industries**

<table>
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<tr>
<th>Year</th>
<th>United States</th>
<th>China</th>
<th>EU</th>
<th>Other developed</th>
<th>Japan</th>
<th>Other developing</th>
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<tr>
<td>2012</td>
<td>631.7</td>
<td>557.1</td>
<td>431.6</td>
<td>128.1</td>
<td>631.7</td>
<td>560.8</td>
</tr>
</tbody>
</table>

**Source:** National Science Foundation, Science and Engineering Indicators 2014

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**Figure 6: High-technology product exports, by selected economy: 2012**

<table>
<thead>
<tr>
<th>Region/country/economy</th>
<th>All HT Products</th>
<th>ICT</th>
<th>Aircraft and spacecraft</th>
<th>Pharmaceuticals</th>
<th>Testing, measuring and control instruments</th>
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</thead>
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<tr>
<td>China</td>
<td>631.7</td>
<td>557.1</td>
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<td>105.3</td>
<td>51.4</td>
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<td>United States</td>
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<td>96.3</td>
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<td>Japan</td>
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<td>457.0</td>
<td>6.1</td>
<td>15.9</td>
<td>81.8</td>
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**Source:** National Science Foundation, Science and Engineering Indicators 2014

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**Figure 7: Commercial knowledge-intensive services exports: 2011**

<table>
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<th>Category</th>
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<tr>
<td>EU</td>
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<td>India</td>
<td>94</td>
</tr>
<tr>
<td>China</td>
<td>76</td>
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</tbody>
</table>

**Source:** National Science Foundation, Science and Engineering Indicators 2014
The reality is that while the EU is slowly recovering from the recession and while it has a strong legacy position in a number of industries, it is not making inroads on its competitiveness gap in productivity and innovation. Indeed, it appears that the Eurozone crisis has set back the EU’s progress in improving its relative competitiveness; thus slowing growth and delaying a reduction in unemployment (see Figures 8 and 9).\textsuperscript{15}

For years, policy makers, business leaders, academia, non-governmental bodies, and other interest groups have been debating—and searching for responses for growth and jobs in the EU. In Accenture’s own most recent research,\textsuperscript{16} EU business leaders cited education and training, reduced regulation, technology adoption, physical infrastructure, and product and service innovation as the five most important factors to improve the competitiveness of the EU’s domestic economies. Of course, the aggregate masks different priorities in different countries. German executives called out a need for faster technology adoption and executives from France and Spain focused on reduced regulation. Italian executives demanded greater labour market flexibility, while business leaders from the United Kingdom, focused equally on reduced regulation and more investment in education and training.

The EU’s Europe 2020 strategy\textsuperscript{17} represents a holistic response to help restore competitiveness and support sustainable growth. However, it was developed before the full impact of the Eurozone crisis and before the sharp decline in energy prices in the United States significantly improved the relative competitiveness of its economy. It is clear, therefore, that the EU needs to review its strategy and the need to accelerate its return to economic competitiveness and growth.
Digital disruption can accelerate the EU's return to economic leadership

There is disruption of societies, industries and economies underway as a result of the emergence and convergence of digital technologies. These include mobile computing, social media, business analytics, big data, cloud, connected devices, sensor networks and other technologies that have both reached critical mass and are working together to define the digital world. They are forces of change, creating opportunities that previously were either technically impossible or uneconomical. We are seeing connected vehicles, connected workers, digital factories, intelligent pipelines, smart grids and many more ways, in which digital technologies are applied to transform products and services and the way we work. Indeed, the change driven by digital technologies could be a larger shift than the one rendered by globalisation during the past 20 years.

Technology adoption data for the EU confirms that digital technologies are already pervasive. Broadband penetration is at 95.5 percent across the EU and mobile broadband is at 59 percent (see Figure 10). There are more than 400 million unique mobile subscribers in the region, where smartphone penetration is at 49 percent. Nearly half of the population routinely purchases products or services online and more than 40 percent use e-Government services (see Figure 11). Looking at the EU Digital Agenda, only the near-term targets for cross-border online purchases and small and medium enterprises selling online are still far from being achieved.
and economic growth. Technology investments on productivity aligned with economists' long-held observations on the positive effects of becoming a digital business, and are affirm the strategic shift toward business leaders overwhelmingly that business leaders would experience only incremental or no change from digital technologies.23 These findings suggest that business leaders overwhelmingly affirm the strategic shift toward becoming a digital business, and are aligned with economists' long-held observations on the positive effects of technology investments on productivity and economic growth.

Crucially, digital technologies are directly impacting productivity, cost, and innovation. New digital processes can radically alter the cost base of companies and competition by lowering barriers to entry, as well as enable the creation of new products, services, and business models to support economic growth and fulfil unmet or emerging customer needs. However, despite the pervasiveness of digital technologies and the recognition of their impact, the EU is starting from behind. Based on the same Accenture research, many business leaders in the leading economies of the EU were behind their global peers in recognising the importance and potential of digital technologies, with Germany in particular lagging behind.24 Overall, the main purpose of digital technology investments for EU companies was primarily focused on increasing efficiency and cutting costs. In contrast to this, fewer EU companies saw digital technologies as a means of growth compared with their global peers. The proportion of business leaders from the five largest economies agreeing with this is lower than the overall responses globally (45 percent), with the proportion falling to 33 percent in the United Kingdom, 34 percent in Spain and 25 percent in Germany.25

In the same survey, nearly 45 percent of C-level executives of companies from the United States estimated that their organisation already used digital technologies to support more than 50 percent of their processes. Only 36 percent of executives from the EU’s five largest economies indicated their businesses had made the same level of progress.26

The EU is well positioned to benefit from the digital revolution. The region has a strong corporate base (it is home to 14 of the world’s 50 largest companies by market capitalisation), with a significant innovation capacity. The EU also boasts a significant number of entrepreneurs and young businesses, which account for half of the jobs created in the EU each year—and tend to be experienced with, and receptive to, the use of a wide variety of technologies.27 Consumers in the EU are similarly sophisticated and open to innovation—they are asking for and actively using digital technologies in their daily lives.28

But while the impact of digital is being felt everywhere, the real change has barely started. The power of digital is in the interplay of the different technologies that help create new opportunities and outcomes. It is not about social media, but the potential for social collaboration at any place. It is not about using analytics to create a better marketing campaign, but leveraging enterprise data across the whole supply chain. It is not about smart tollgates on motorways, but the opportunity to use the data from millions of real-time traffic movements and from road sensors to help optimise traffic flows across a whole region. It is not about online backup, but giving a young business access to near-unlimited computing power that years ago only massive organisations could afford. It is about helping solve everyday challenges for citizens, consumers, and organisations in new ways based on new combinations of information, resources, and technologies.

In the next section, we explore how specific digital technologies are helping to transform five key sectors of the EU economy—and further illustrate the potential digital has to rebuild competitiveness and create economic growth across the EU.
The EU today has some of the world's most advanced economies, industries, and technology infrastructures. We believe that the digital technology disruption underway provides a unique opportunity for the EU to build on that base and shape its economic future and competitive differentiation.

Technology revolutions, such as the one currently underway through digital technologies, affect industries in five main ways:

• They create new industries and destroy others: For new industries, think about online gaming, mobile payments, and reputation management.
• They shift the value within and across industries: They add or remove intermediaries. Think about online travel booking and self-publishing.
• They change the nature of control points. Customer data and information generated by smart devices have replaced the importance of physical presence in many cases.
• They change the role and value of processes, data, and infrastructure. Flexibility, customisation, and learning from unstructured data have become critical.
• They change how work is done. We are seeing the next wave of automation—often of knowledge-intensive work, location independence, and a simultaneous increase in collaborative and group work.

Consider some of the possibilities:

### Manufacturing

The EU as a whole cannot succeed without a robust, competitive, manufacturing industry. That is why digital technologies are so important: Industry 4.0, a groundbreaking approach to production with digital technologies as its foundation, promises to usher dramatic changes into the industrial world (see Figure 12). Examples are machine-to-machine communication, sensors and 3D printing, which can dramatically change the entire industrial ecosystem, and serve as a catalyst for the reindustrialisation of the EU. Billed as the fourth Industrial Revolution, Industry 4.0 is poised to combine classic production techniques with cyber-physical production systems (CPPS), leading to the creation of an “Internet of things, data, and services.” Industry 4.0 represents a tectonic shift from centralised to decentralised production. This means that industrial production machinery no longer simply "processes" the product, but that the product communicates with the machinery to tell it exactly what to do.

A good example of how Industry 4.0 is transforming manufacturing is Trumpf, a German producer of intelligent machine tools and industrial laser systems that is taking the next step beyond efficiently manufacturing its machines. If Instead, Trumpf is interested in mining the information provided by the machines, to gain deeper, actionable insights and to network machines in an intelligent way to create smart factories. In this way, they autonomously exchange information, trigger actions, and control each other, improving productivity and speed and reducing costs.

Another example is BMW, which launched its “ConnectedDrive” services, designed to meet the increasing wants and needs of drivers and passengers. "ConnectedDrive" delivers the latest in-vehicle technologies providing consumers with entertainment and information, enhanced safety features, and seamless integration with their mobile devices. The company benefits through additional revenues from subscription fees from end customers for the connected services.
Figure 12: The fourth Industrial Revolution

Cyber physical systems combine communications, IT, data and physical elements using the following core technologies:
- Sensor networks (receptors)
- Internet communication infrastructure (IP)
- Intelligent real-time processing and event management (CPUs)
- Actors for mechanical activities
- Embedded Software for logic
- Big Data and Data Provisioning
- Automated operations and management of system activities

Source: Accenture analysis
Banks in the EU are recovering from the downturn, but growth is slow and profitability remains low. The return on equity (ROE) at the average large EU bank in the first half of the 2013-2014 financial year was 8.2 percent, compared with 8.7 percent for the United States. ROE of large EU banks is forecast to remain below 10 percent in 2015. Making their outlook worse is the aggressive entry of non-banks through digital innovations, such as mobile and online payments, and who are capturing a growing part of the economic value usually created by banks.

So how do banks in the EU respond? Banks can use digital technologies to significantly help reduce costs, manage risks, and innovate through digital products and services to achieve new growth. Up to two-thirds of the profitability uplift required by banks to be in the high performer category is linked to technology-led transformation (See Figure 13).

For instance, a French bank adopted a cloud-based analytics solution that automates risk assessment to help it fulfil state-mandated obligations to provide short-term lending, while managing credit quality. Ten days after rollout, the system was handling more than 300 loan applications worth more than 250 million Euros. In effect, the analytics approach is helping the bank grow, and is also helping the bank foster economic growth by providing liquidity to businesses, while managing risk.

Another example for digital innovation is BNP Paribas Fortis, which has teamed up with Belgium’s largest telecom company to create Belgium’s first mobile wallet. It will allow consumers to use their mobile devices to purchase goods or services, redeem coupons, or use their loyalty cards when visiting the mobile application of participating merchants.

Figure 13: For a bank, up to two-thirds of the profitability uplift required to be a high performer could come through technology-led transformation.
Energy and Utilities

Energy costs are a critical component of competitiveness for EU-based companies. This is especially true for manufacturers in energy-intensive industries, which account for about 25 percent of industrial employment and 70 percent of industrial energy use, according to the International Energy Agency. In 2011, the EU was the world leader in the production of energy-intensive goods, with a global market share of 36 percent. However, that leadership position is threatened by the disparity in energy costs between EU and other countries. In fact, partially because of their lower energy costs, the United States and key emerging economies are expected to see a rise in export shares of energy-intensive goods up to 2035, while the EU is forecast to see a sharp decline (see Figure 14).

As it is unlikely that the EU will be able to compete with the United States on energy costs in the foreseeable future, it needs to become more energy efficient and take fundamental market model decisions regarding fuel mix, interconnection, the EU Emissions Trading System, and capacity remuneration to optimize the overall energy system. Digital technologies can play a role in helping the EU’s transition to this ‘new energy architecture’. Technologies such as smart grids, smart metering and analytics can help make the EU a world leader in energy efficiency and intelligent, distributed energy, compensating to some extent for the EU’s energy cost disadvantage. These technologies also provide opportunities for global leadership in high-value exports of energy technology.

Recognising this potential, the United Kingdom has embarked on a smart meters deployment programme, supported by mobile and analytics technologies—rolling out approximately 53 million electricity and gas meters to all domestic properties and smart or advanced meters to smaller non-domestic sites by the end of 2020, impacting approximately 30 million premises. The effort is expected to enable the United Kingdom’s energy producers to manage and analyse high volumes of meter data more effectively to help customers conserve energy and to enhance providers’ outage management processes with near real-time outage and restoration verification capabilities. In total, in the largest five EU markets 45 million smart meters had been installed as of 2013, slightly lower than the 49 million installed in North America, but considerably less than the 153 million meters in China.

Figure 14: The United States and key emerging economies are forecast to increase their share of energy-intensive goods, while the EU and Japan are likely to see a sharp decline.

Export share in 2011
Expected changes for 2035 in pp
Source: Accenture, IEA, WEO 2013
Public Services

Public services are a crucial component of the EU economy, accounting for more than 50 percent of GDP across the EU as an average. Political and economic realities are putting enormous demands on public services, while public sector deficits in the EU are still climbing to new heights, at least in the near term. Aging populations, growing fiscal uncertainties, and rising citizen expectations have put governments in unsustainable positions. To meet the ever-increasing citizen demand against supply, public service organisations in the EU must do more, and better, with less. Digital technologies can—and will—play a vital role in that transformation.

More specifically, digital technologies can help public service organisations in a number of ways. For starters, integrated online portals—underpinned by cross-agency data sharing and providing a "one-stop shop" for all citizens’ requests—taxes, benefits and pensions for example—can help drive significant cost efficiencies through citizen self-service, while improving the customer experience for citizens. Such an improvement would be welcome by citizens. According to a 2012 Accenture survey, at a global level, 46 percent of respondents would prefer a single website to deal with the government.42 A significant element of the portal is the ability for organisations to personalise services to meet citizens’ specific expectations, which further improves the online experience, while reducing costs to the government, as well as reducing administrative burdens for businesses.

At the same time, digital fosters and supports the increased transformation of public-services delivery, by allowing new type of partnerships across public, private, and third-sector actors. By sharing information and processes, digital offers fundamental shifts in the interaction between governments and citizens as well as businesses to create a seamless experience. As an example, social services are delivered to the elderly by social sector non-for-profit players, while leveraging information and financial streams provided by public entities.

New technologies such as social networking and mobility also provide an unprecedented platform for citizens to discuss and debate issues, voice their concerns, exchange information, petition governments to make improvements in public services, and even to work together to improve the quality of life in their communities. Overall, 64 percent of the surveyed citizens stated they already use social media or would like to use it in the future as a means of interacting with their government (see Figure 15).43 The co-design and co-delivery of public services with stronger ownership and participation of recipients of these services will lead to a repositioning of public services, whether it is with “government as a platform” or “new public movement” initiatives, but in any case enabled by digital.

By embracing the use of analytics, governments can develop insight-driven services, which can lead to better prediction of demands and threats, improved productivity, and reduced costs. For example, an insight-driven approach can be beneficial in enabling more timely interventions in health and human services. In taxation, such tools help reduce fraud and errors, identify revenue leakage opportunities, and reduce costs through streamlined operations or cross-agency collaboration.

Finally, digital technologies can help public service organisations solve the “public productivity puzzle” and deliver better outcomes for the same or lower cost. For instance, a Digital Efficiency Report commissioned by the United Kingdom government found that the average cost of a central government digital transaction can be almost 20 times lower than the cost of one done by telephone and 50 times lower than one executed face to face.44 In Portugal, an initiative called "Zero Licensing" spearheaded by the Agency for Administrative Modernisation was able to bring down the time to start a business to one day from more than 30 days.45

The impact of efficiency improvement on the bottom line is significant: One percent annual productivity gains would amount to cost savings of US$180 billion in France, US$190 billion in Germany, and US$140 billion in the United Kingdom.46

Figure 15: Adoption of social media by citizens

64% of citizens stated they already use social media or would like to use it in the future to interact with their government.

Source: Accenture, 2014
Healthcare

Digital tools can play a key role in helping healthcare providers promote wellness and preventive care, to reduce the incidence of costly treatment for serious health problems or chronic diseases, deliver better treatment outcomes, and cut overall operating costs.

In Spain, for instance, Osakidetza, the Basque public health service, deployed a technology solution for chronic disease management that included patient segmentation, modelling, self-management, connected patient network, electronic medical records, telemedicine, and new roles and responsibilities for homecare, hospitals, and nurses. This holistic approach to tackling the challenge of chronic diseases in the Basque Country generated 59.5 million Euros in cost savings in 2012 (see Figure 16). In addition, pharmaceutical prescription costs have decreased by 2.5 percent. It is estimated that if Osakidetza’s programme were extended and applied at the wider European level, it could lead not only to better services but also to health management-related cost savings that could amount to 62 billion Euros, or 5 percent of EU governments’ health spending.

Of course, the EU is made up of many countries, industries, and companies, starting at vastly different points of the journey, which means a “one-size-fits-all” strategy is neither advisable nor practical. Furthermore, countries and industries are emerging from the recent crisis at different speeds, which indicates a need for some countries to accelerate their progress towards adopting digital best practices. There are a number of important challenges that must be addressed, by both businesses and governments, to seize the digital opportunity and create a foundation for renewed growth and prosperity.

Figure 16: Cost savings in chronic disease management in the Basque public health service in 2012
Realising the opportunity – the business leader's agenda

Because an economy's competitiveness is, among other things, an aggregate of the competitiveness of its businesses, business leaders in the EU have a defining stake in creating prosperity through transforming existing businesses into digital businesses and creating new digital enterprises. We refer to a digital business as one that achieves growth and results by creating unique customer experiences through new combinations of information, business resources, and digital technologies.49

In pursuing their own strategies for renewal in a digital world, EU companies should concentrate on using digital technologies in two critical ways. The first is to increase productivity and internal efficiency to reduce costs. This includes improved process efficiency, better asset utilization to optimise production and inventory costs, a more responsive organisation to reduce the cost to serve and implementing new cost models like self-service and reduced time spent on non-selling activities. The second is to generate new levels of innovation and growth by better serving customers and consumers that demand new products, services, and better experiences. This includes defining digital business strategies that target new business outcomes, the development of new and improved products and services, new and optimised channels to customers, efficient expansion into new markets, and new pricing and earnings models to maximise profitability.

A digital business can create revenue and results by using innovative strategies, products, processes, and experiences. Being digital requires the adoption of a number of key principles:

• Growth tends to come through customer experiences and relationships that adapt to their customer dynamics and demands.

• Operational results can be delivered via new combinations of information, processes, channels, and workforce abilities that leverage new high-performance business and operating models.

• Information is at the centre of the business model. It is usually the basis for differentiating customer experiences and the fuel for more efficient operations that deliver these experiences.

• IT infrastructures become digital platforms. Companies may not be able to realise digital ambitions if they continue to be shackled by the cost, complexity, and limited capacity of their legacy infrastructures. A digital business platform supports a diverse set of customer and operational requirements with a single set of resources.

Critically, executives need to recognize that an organisation that simply applies new digital technologies to existing products and services is not the same as a digital business. These applications can represent important steps forward. However, they will not be sufficient to capture the digital growth opportunity or address disruption from more digitally sophisticated competitors. Companies should identify the new customer-driven outcomes that digital makes possible, consider how their business and operating models need to change to deliver these new outcomes, and then define the combination of digital and traditional technologies, operations, and information required to realise these outcomes.
To be successful in these strategies, business in the EU must also develop eight foundational digital capabilities (see Figure 17):

- **Strategy and governance**, which focuses on how the company develops strategy that is aligned within business functions; evaluates opportunities to generate new areas of growth throughout the business; and makes, evaluates, and enforces decisions across the enterprise.
- **Organisation and collaboration**, which involves how the company organises resources and responsibilities to achieve business goals; fosters collaboration among teams in their daily work; and builds the capacity to enhance the workforce and its abilities.
- **Customer experience and interaction**, which includes how the enterprise interacts with its customers and incorporates digital solutions in creating unique and market-making experiences.
- **Technology and platforms**, which concerns how the enterprise leverages digital technologies and platforms to generate business results.
- **Information and insights**, which targets how the company leverages information in products, services, experiences, and company decisions.
- **Growth and innovation**, which considers the agility with which the enterprise uses innovation and operations to define new and uniquely valuable products and services and take them to market.
- **Operations and ecosystem**, which concentrates on the efficiency and effectiveness of operations and the business ecosystem.
- **Security and privacy**, which involves how well the company controls and secures business and customer data, information, and intellectual property.
In parallel, EU governments and policy makers must help create the vision and put in place the enablers for the EU’s future as a digital economy. In doing so, they must act on three major challenges.

First, they must urgently address the fragmented regulatory environment faced by businesses operating across the EU, which is preventing the uptake of digital technologies and solutions, at scale, and therefore the full potential of the digital single market and digital as an accelerator for European competitiveness. This includes ensuring the modernization and harmonization of data protection rules across the EU, and streamlining compliance, to strike the right balance between protecting the individual’s right to privacy, while enabling business and consumers to leverage the benefits of new data and technology-based products and services.

Similarly, EU governments and policy makers must put in place a supporting regulatory environment for investment in technology, innovation, and digital infrastructure, which are the backbone of the digital transformation of the economy and essential ingredients to the success of innovative entrepreneurs. The harmonisation and the modernisation of rules in the communications markets are critical to enabling players with operations in multiple EU countries to capture the full potential of cross-country synergies, and the development of pan-European IT platforms and services.

Second, the region continues to struggle with a widening digital skills gap. In fact, while there was a shortfall of 300,000 digitally skilled people in the EU in 2011, it is now estimated that there could be a shortfall of up to 900,000 by 2015 (see Figure 18). This will impact the ability of EU businesses and governments to leverage the digital opportunity, and to proactively adapt and lead in creating digital businesses. At the same time, there is also the reality that digital disruption, while accelerating economic growth and competitiveness, will displace workers due to automation and changing skill requirements.

Solutions for these two complementary problems must be linked, targeting relevant technical and vocational training, while employing digital platforms and tools, such as online learning, which will improve and accelerate access to the right skills and which need to be further enhanced, implemented and expanded across the 28 EU member states. EU governments and businesses also need to make targeted investments in new educational and training policies to continuously up-skill and re-skill existing and future employees to address structural changes in skills requirements. Policies that enhance the mobility of qualified talent within, and into, the EU must also be part of the solution.

Third, governments and policy makers must support entrepreneurship to foster the launch and development of new businesses and facilitate the creation of new jobs. Young businesses already contribute the majority of employment growth in the EU, but it needs to nurture a more entrepreneurial culture. Policy makers should further promote the delivery of public advisory services, such as those regarding tax or fiscal matters, while strengthening “second chance” policies to make it easier for businesses to start, grow, and further flourish.

While many factors contribute to entrepreneurial success, one of the biggest—and hardest to measure—is the ability to collaborate with other entrepreneurs in a cluster, the most famous of which is Silicon Valley. There are a number of examples of cluster development in the EU, including those in London, Berlin, and Paris. Governments and business need to support the further development of clusters in the EU, including virtual clusters, around key industries, bringing together educators, large and small business, traditional industries and services as well as technology players and talent. Virtual clusters, supported by digital technologies, can bring together all these players to accelerate the pace of innovation and job creation.

Finally, they should further promote new financing opportunities for businesses—partly through digital business models like crowd funding or peer-to-peer lending to help incubate and commercialise the EU’s greatest innovations more effectively. Finally, EU governments and policy makers should make concerted efforts to attract and retain inventors, innovators, and entrepreneurs—particularly those that are young and digitally proficient.
As part of its Digital Agenda for Europe, the European Commission measures and publishes an annual scorecard of progress toward the adoption of digital technology and services across EU member states. However, while this is an important and positive initiative, it does not measure the impact of digital on the factors that influence European competitiveness.

In addition, there is a need to assess businesses, current position and set out a roadmap of initiatives and targets on integrating digital technologies into processes, products, and services, which can be tracked. Accenture has done this recently to measure the progress of large German companies in leveraging digital technologies, using an Accenture-developed digital index that measured progress in three areas: development of a digital strategy aligned to the overall corporate strategy; digital product and service innovation; and digital enablement and automation of the organisation.

The research found there are a number of large, high-growth businesses that are already well advanced in leveraging digital technologies (see Figure 19). One such company is BMW, a traditional industry leader that has developed a comprehensive digital transformation strategy and is aggressively pursuing new digital-based offerings. For instance, via its BMW i Mobility Services, the company launched “DriveNow,” a car-sharing service that teams BMW, MINI, and SIXT to enable users to rent cars flexibly, when and where they need them. Billing is on a per-minute basis, and fuel costs and parking charges in public car parks are included. Users can locate available cars using the app, website, or on the street, and a chip in the customer’s driving license acts as an electronic key. Another example of a BMW i Mobility service is “ParkatmyHouse.com,” an online marketplace that brings together owners of private parking spaces and people in search of parking.

Figure 19: Measuring progress: Germany’s digital champions

Source: Accenture, 2014
In the public sector, Accenture’s recent digital government research evaluated progress in digital services implementation across 10 countries—Brazil, Germany, India, Norway, Saudi Arabia, Singapore, South Korea, the United Arab Emirates (UAE), the United Kingdom and the United States.55

This Citizens Service Experience index is based on a combination of weighted quantitative and qualitative measures in three key areas: the voice of citizens related to the role of their governments in providing excellence in services; the level to which a government has developed an online presence; and the extent to which government agencies manage interactions with their customers—citizens and businesses—and deliver service in an integrated way. Using this index, Accenture was able to assign an overall score on digital service progress for each country. Singapore emerged as the overall leader (7.4), followed by Norway (7.3), and the UAE (6.7). South Korea (6.0), Saudi Arabia (5.9), the United States (5.9) and the United Kingdom (5.7) formed the middle pack, and India (5.4), Germany (4.7) and Brazil (4.3) followed.56

Part of Accenture’s research programme will develop a similar methodology for measuring the impact of digital on European competitiveness—both from a country and industry perspective—against which progress can be measured over time.
Digital technologies are not the “silver bullet” that alone will create growth and prosperity. However, the EU has an opportunity to use these powerful disruptors to not only help address some of the challenges that have been holding its economies back, but more importantly, to capitalise on the substantial upside in growth and subsequently, in employment. The EU has a technology infrastructure in place, but its success in the digital era will require it to take more profound steps to unlock the potential of digital. However, many business leaders in the leading EU economies are less positive about the importance and potential of digital compared to their global competitors.

A significant and concerted effort is therefore required for the EU to become a leader in the era of the digital business. It is time for the region to seize the opportunity.
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